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TITLE: Enhancing Immune Checkpoint Inhibitor therapy in Kidney Cancer

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14. ABSTRACT  The purpose of this work is to develop strategies to enhance immune checkpoint inhibition in kidney cancer. The work is designed to test different strategies to induce or enhance the abscopal in a kidney cancer model by combining ablative techniques or TLR agonists with PD1 inhibitors. Funds were transferred to UT Southwestern mid 2017. The PI is in the process of getting IACUC/ACURO approval for the poposed animal studies.					
15. SUBJECT TERMS Kidney cancer, Immunotherapy, abscopal effect					
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1. **INTRODUCTION:** *Narrative that briefly (one paragraph) describes the subject, purpose and scope of the research.*

**The purpose of this research is to test therapeutic strategies to make immune checkpoint inhibition more effective in an animal model of kidney cancer.** Our plan is to combine focally ablative techniques such as radiation or cryotherapy with PD1 immune checkpoint inhibition and assess the abscopal effect, i.e. the growth of tumors at a distant, untreated site. Additionally, we will test the effect of TLR agonist administration in this model and look at combination with focally ablative techniques.

2. **KEYWORDS:** *kidney cancer, immunotherapy, PD1, TLR, abscopal, radiation, cryotherapy*
3. **ACCOMPLISHMENTS:**

The major goals for the first year were to

- a) produce PD1 antibody from a H5 hybridoma (available from the Drake lab)
- b) obtain IACUC/ACURO approval for the animal protocol
- c) test the effect of radiation of radiation and cryotherapy +/- PD1 inhibition on the abscopal effect
- d) analyze tissues for immune cell infiltrates

Funding was transferred in mid/fall 2017. Since then we have been working on the IACUC animal protocol which is currently undergoing its 3<sup>rd</sup> revision. WE expect it to finally approved by end of January 2018, when we can submit it for IACUC review.

No funding for personnel or any lab/ animal related studies until ACURO approval.

At UT Southwestern I am a Co-leader at the Kidney Cancer Program and have access to lab space, animal facilities and a pathology core to conduct the studies as outlined in the original statement of work.

4. **IMPACT:**

Nothing to report

5. **CHANGES/PROBLEMS:**

As outlined above the progress with this project was primarily stalled by the PI changing institutions and we expect to be in the position to perform start with the animal studies shortly.

The PI does not foresee problems or barriers with the conduct of these studies at UT Southwestern.

6. **PRODUCTS:**

Nothing to report

**7. PARTICIPANTS & OTHER COLLABORATING ORGANIZATIONS:**

None

**8. SPECIAL REPORTING REQUIREMENTS:**

None